

(i)

JEWISH HOSPITAL GASTROENTEROLOGY/HEPATOLOGY ROTATION

Goals of the Rotation:

1. Increase knowledge and skills needed for optimal care of patients with common liver problems.
2. Provide exposure to patients with pre-, peri- and post-transplantation care.
3. Exposure is also provided in a wide range of common luminal gastrointestinal problems.

(I) Jaundice

Causes and evaluation

(II) Approach to the evaluation of abnormal liver enzymes

Know the differences between Hepatocellular and Cholestatic patterns and how to approach the workup.

(III) Diseases of the Liver

1. Viral Hepatitis –A, B , C, D and E
2. Metabolic, Hereditary, Inflammatory and Vascular Diseases of the Liver
 - a) Alcoholic Liver Disease
 - b) Drug and toxin induced liver diseases.
 - c) Non Alcoholic fatty liver disease (Steatosis and Steatohepatitis)
 - d) Hereditary Hemochromatosis
 - e) Wilson's disease
 - f) Alpha1 Antitrypsin deficiency
 - g) Primary Biliary Cirrhosis
 - h) Primary Sclerosing Cholangitis.
 - i) Autoimmune Hepatitis
3. Cirrhosis and complications of cirrhosis
 - Causes of cirrhosis
 - Complications of cirrhosis
 - Portal hypertensive GI bleeding
 - Ascites
 - Spontaneous Bacterial Peritonitis
 - Hepatorenal Syndrome
 - Hepatopulmonary syndrome and Portopulmonary Hypertension
 - Hepatic Encephalopathy
 - Hepatocellular Carcinoma
4. Acute Liver Failure
5. Liver transplant Basics
 - Know indications and contraindications for liver transplantation.
 - Medical care of the patient who is s/p liver transplant
6. Pregnancy related liver diseases
7. Focal Liver lesions
 - Hepatic tumors, Cysts and Abscesses

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(IV) Diseases of the biliary tract

Gallstones

Acalculous disorders of the biliary Tract (Sphincter of Oddi Dysfunction, Gallbladder dysmotility syndromes, acute acalculous cholecystitis, HIV cholangiopathy)

Neoplastic diseases of the biliary tract (GB cancer, Cholangiocarcinoma, Ampullary Cancer)

(V) Gastrointestinal Bleeding

Upper gastrointestinal bleeding

Causes, evaluation and management including urgent management

Lower gastrointestinal bleeding

Causes, evaluation and management including urgent management

Aspects of management of GI bleeding in cirrhotic patients

VA MC, UNIVERSITY HOSPITAL AND NORTON'S HOSPITAL GASTROENTEROLOGY/HEPATOLOGY
ROTATION

Goals for Rotation:

- Expand knowledge base and management skills of common gastroenterology problems.
- The bulk of exposure in these hospitals are diseases of the luminal GI tract and endoscopy including therapeutic endoscopy.

(I) Symptoms of Gastrointestinal Disorders

1. Acute Abdominal pain

Causes, differential diagnoses and evaluation

2. Symptoms of esophageal disorders

a) Dysphagia

Causes of dysphagia –oropharyngeal and esophageal

Evaluation

b) Odynophagia –Definition and Causes

3. Nausea and Vomiting

Causes and evaluation

4. Diarrhea

Causes and evaluation

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7. GI bleeding
Causes, evaluation and management including urgent management

(II) Disorders of the Pancreas

1. Acute pancreatitis
Clinical features and diagnosis
Prognostic Criteria for Acute Pancreatitis
Management
Complications
2. Pancreatic Adenocarcinoma
Clinical presentation
Diagnosis
Treatment
3. Cystic Pancreatic neoplasms and evaluation
Serous, Mucinous Cystadenoma
Intraductal Papillary Mucinous Neoplasia
4. Pancreatic Neuroendocrine Tumors

(III) Disorders of the Intestines

1. Diarrhea
Causes, evaluation and management
2. Malabsorption syndromes
Celiac Disease
Pancreatic insufficiency
Short Bowel syndrome
Small Intestinal Bacterial Overgrowth
3. Inflammatory Bowel diseases
Different forms of IBD- Crohn's disease, Ulcerative colitis
Risk factors including genetic predisposition
Clinical features
Extraintestinal Manifestations
Diagnosis
Treatment
Microscopic Colitis (Lymphocytic and Collagenous colitis)
4. Dysmotility syndromes
Ileus and Pseudoobstruction
Dysmotility disorders in patients w Diabetes Mellitus

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Chronic Intestinal Pseudoobstruction
Ogilvie's Syndrome

5. Colonic diverticular diseases and their complications (Diverticulitis and bleeding)
6. Intestinal Ischemia
 - Acute intestinal Ischemia
 - Chronic Intestinal Ischemia
 - Colonic Ischemia

(IV) Gastrointestinal Bleeding

Upper gastrointestinal bleeding

Causes, evaluation and management including urgent management

Lower gastrointestinal bleeding

Causes, evaluation and management including urgent management

Aspects of management of GI bleeding in cirrhotic patients

Obscure GI bleeding-Overt and Covert

Causes and differentials including angioectasias and Dieulafoy's lesions

Evaluation modalities

Management

(V) Diseases of the biliary Tract

Gallstones

Acalculous disorders of the biliary Tract (Sphincter of Oddi Dysfunction, Gallbladder dysmotility syndromes, acute acalculous cholecystitis, HIV cholangiopathy)

Neoplastic diseases of the biliary tract (GB cancer, Cholangiocarcinoma, Ampullary Cancer)

OUTPATIENT CLINICS INCLUDING PRIME CLINIC

(I) Symptoms of Gastrointestinal Disorders

1. Chronic Abdominal Pain
 - Causes, differential diagnoses and evaluation
2. Symptoms of esophageal disorders
 - c) Globus sensation- Definition and Causes
 - d) Chest pain of esophageal origin
 - e) Heartburn and regurgitation

3. Dyspepsia
Definition, causes including organic and functional causes
Approach to evaluation
4. Constipation
Causes and evaluation
5. Esophageal Disorders
 - a. GERD
Pathophysiology
Diagnosis
Treatment
Symptoms related to GERD;
Esophageal
Supraesophageal / Extraesophageal (LPR, Non Cardiac Chest Pain)
 - b. Barretts Esophagus
Pathology, Screening and Surveillance guidelines
Treatment
Know when to refer-i.e. Finding of dysplasia
Know that ablative therapies exist for treatment of dysplasia
 - c. Esophageal adenocarcinoma
Diagnosis and Treatment
 - d. Motility disorders of the esophagus
Hypertonic Motility disorders
Hypotonic motility disorders
Achalasia
 - e. Esophageal Miscellaneous
Eosinophilic Esophagitis
Pill esophagitis
Infectious Esophagitis
6. Disorders of the Stomach
 - a. Peptic ulcer diseases
Clinical Features, Diagnosis and Complications
 - b. H. pylori infection
Clinical features, Diagnosis and Treatment
 - c. NSAID induced disorders
Mechanism of NSAID induced gastrototoxicity
Treatment
Prevention

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- d. Gastric motility disorders including gastroparesis
- e. Complications of Gastric Surgical Procedures
 - Complications of bariatric surgical procedures
 - Complications of gastric resection procedures
- 7. Disorders of the Pancreas
 - a. Chronic Pancreatitis
 - Causes, Diagnosis, management
- 8. Disorders of the Intestines
 - a. Dysmotility syndromes
 - Constipation
 - Dysmotility disorders in patients w Diabetes Mellitus
 - b. Irritable bowel syndrome
 - Definition
 - Evaluation
 - Treatment
- 9. Colorectal Neoplasms
 - Pathophysiology including genetics
 - Epidemiology and risk factors
 - Hereditary colon cancer Syndromes
 - Screening and Surveillance for colorectal neoplasia
 - Screening
 - Available tests
 - Average risk patients
 - High risk patients
 - Surveillance of patients with colon polyps or cancer
 - Colon polyps
 - Colon cancer
 - Appropriate use of surveillance including intervals
 - Clinical presentation of Colonic Neoplasia
 - Staging of Colon Cancer

Required Reading:

- MKSAP Gastroenterology Section
- MEDSTUDY Gastroenterology Section

GI guidelines available via an electronic link at

UofL, GI division website

<http://www.louisville.edu/medschool/gimedicine/physician-resorces/division-lectures.html>

AASLD Practice guidelines

<http://www.aasld.org/practiceguidelines/Pages/default.aspx>

AGA Medical Position Statement

<http://www.gastro.org/practice/medical-position-statements>

ACG Guidelines

<http://www.acg.gi.org/physicians/clinicalupdates.asp#guidelines>

Literature searches done to optimize patient care and supplement knowledge.

Suggested journals:

Gastroenterology, Clinical Gastroenterology and Hepatology, American Journal of Gastroenterology, Digestive Diseases and Sciences, Gastrointestinal Endoscopy, Journal of Clinical Investigation, NEJM, Annals of Int Medicine, American Journal of Physiology, and Hepatology.

Suggested Texts for Reading/Reference:

- Sleisenger, MH, Fordtran JS: Gastrointestinal and Liver Disease: Pathophysiology, Diagnosis, Management.
- [Tadataka Yamada: Principles of clinical gastroenterology](#)
- Zakim D, Boyer TD. Hepatology: A Textbook of Liver Diseases (Vol 1 and 2).
- Schiff E, Sorrell MF, Maddrey WC (Eds): Schiff's Diseases of the Liver Expectations: